

Subject: MATHEMATICS
Level 2 Certificate in Further Mathematics
(Set 1 only)

Exam board
and overall exam code: AQA 8360

Exam contents: 2 written papers covering the whole specification

Paper No	Length	Calculator/ Non calculator	Exam date	Marks	Percentage of overall GCSE
8360 Paper 1	1hr 30 mins	Non-Calculator	19 JUNE	70	40%
8360 Paper 2	2hr	Calculator	21 JUNE	105	60%

The following topics will be tested in the examination:

Number

Manipulation of surds

Algebra

Definition of a function

Domain and range of a function

Expanding brackets and collecting like terms

Factorising

Manipulation of algebraic fractions

Manipulation of formulae and expressions

Use of the factor theorem

Completing the square

Sketch graphs of linear and quadratic functions

Solution of linear and quadratic equations

Algebraic and graphical solutions of simultaneous equations and inequalities

Index laws, including fractional and negative indices

Algebraic proofs

Sequences

Nth term of linear and quadratic sequences

Limiting value of a sequence as n tends to infinity

Coordinate Geometry

Straight line

Midpoint, distance between two points

Gradient of parallel and perpendicular lines

Find the equation of a straight line and draw

Circles

Equation of a circle with centre at the origin and not at the origin

Calculus

Find the gradient function

Differentiation of polynomials

Find the equation of a tangent and normal at any point on a curve

Use differentiation to find stationary points on a curve.

Sketch a curve with known stationary points

Matrix Transformations

Multiplication of matrices

Identity and inverse matrices

Transformations of the unit square in the x-y plane

Combinations of transformation

Geometry

Angle properties of parallel and intersecting lines, triangles, all special types of quadrilaterals and polygons.

Understand and use Circle theorems

Understand and construct geometrical proofs using formal arguments

Area, Sine and Cosine Rules in scalene triangles

Use of Pythagoras' theorem in 2D or 3D

Sketch and use trig graphs

Knowledge and use of special triangles

Use of trigonometric identities

Solution of simple trigonometric equations in given intervals